PUBLIC NOTICE

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Office of Engineering and Technology, Wireless Telecommunications Bureau, and Office of Strategic Planning Announce Workshop on "Spectrum Efficiency and Receiver Performance"

As part of the Commission's efforts to enhance the use of spectrum for mobile broadband, the FCC Office of Engineering and Technology, in conjunction with the Wireless Telecommunications Bureau and the Office of Strategic Planning will host a workshop on spectrum efficiency and receivers. The workshop will be held on Monday, March 12, 2012 and Tuesday, March 13, 2012, in the Commission Meeting Room at FCC Headquarters in Washington, DC.

The role of receivers in enabling access to spectrum for new services implicates federal stakeholders, as well as the private sector. Receiver performance issues have often arisen as a conflict between legacy stakeholders and new entrants where deployment of new technologies and services threatens to adversely impact an incumbent or place restrictions on the new entrant. Past examples include interference issues between new cellular radio systems and public safety radio systems,[1] satellite digital radio systems and proposed terrestrial data services,[2] and ancillary terrestrial service on mobile satellite spectrum and GPS[3]. The resolution of such matters has historically required a public process involving regulators, stakeholders and other parties. Because such discussions sometimes arise only upon the introduction of a new service or technology, full deployment of new services could be hindered. New approaches to spectrum management focusing on spectrum efficiency and receiver performance may enable more assured deployment of new services and reduce the necessity for the involvement of regulators.

This two-day workshop will discuss the characteristics of receivers and how their performance can affect the efficient use of spectrum and opportunities for the creation of new services. Key topics will include current practices for receiver design, case studies involving interference due to receiver characteristics, and approaches for promoting interference avoidance and efficient use of spectrum, given the current receiver base and potential future deployments. The workshop will include perspectives from licensees, equipment manufacturers, component providers, and other interested parties.

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[1] *See* Improving Public Safety Communications in the 800 MHz Band, WT Docket 02-55, *Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order*, 19 FCC Rcd 14969 (2004) as amended by *Erratum*, DA 04-3208, 19 FCC Rcd 19651 (2004) and *Erratum,* DA 04-3459, rel. Oct. 29, 2004 (*800 MHz R&O*).
[2] *See* Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, WT Docket No. 07-293, *Report and Order, Second Report and Order*` rel. May 20th, 2010
[3] *See FCC Public Notice* International Bureau Invites Comment On NTIA Letter Regarding Lightsquared Conditional Waiver, DA 12-214, IB Docket No. 11-109, rel. February 15, 2012

Spectrum Efficiency and Receiver Performance Workshop Agenda

Day 1 (March 12, 2012)

9:30 am **Session 1: Introduction – Role of Receivers in Spectrum Efficiency**
Julius Knapp, Chief, FCC Office of Engineering and Technology
Karl Nebbia, Associate Administrator, NTIA Office of Spectrum Management

10:00 am **Session 2: Receiver and Interference Basics**
Dennis Roberson, Vice Provost, Executive Director and Research Professor, Illinois Institute of Technology, Member, FCC Technological Advisory Council (TAC)

10:30 am - 12:00 pm **Session 3: Receiver Ecosystem**
Kathy Barnes, Senior Director of Network and Device Quality Assurance, T-Mobile
Terry Smith, Corporate Vice President and Chief Engineering Officer, Sirius XM
John Foley, Director of Aviation GNSS Technology, Garmin
Steve Wilkus, Distinguished Member of Technical Staff, Alcatel-Lucent
Steven Loh, Senior Staff Engineer, Samsung
David Gurney, Distinguished Member of Technical Staff, Motorola
Gene Fong, Senior Staff Engineer, Qualcomm CDMA Technologies

Moderators: Michael Ha, EMC Division, FCC Office of Engineering and Technology; Robert Weller, Branch Chief, EMC Division, FCC Office of Engineering and Technology

12:00 pm - 1:00 pm **Lunch Break**
(Attendees are encouraged to bring lunch or to purchase lunch in the FCC courtyard restaurant)

1:00 pm - 3:00 pm **Session 4: Experiences and Lessons Learned**
David Gurney, Distinguished Member of Staff Engineer, Motorola
Larry Krevor, Vice President of Legal and Government Affairs, Sprint-Nextel
Dan Wilson, Principal Engineer, T-Mobile
Victor Tawil, Senior Vice President, National Association of Broadcasters (NAB)
Terry Smith, Corporate Vice President and Chief Engineering Officer, Sirius XM
Kurt Schaubach, Vice President and Chief Technology Officer, NRTC
Brian Markwalter, Senior Vice President of Research and Standards, Consumer Electronics Association (CEA)
Doug Smith, Chief Network Officer, Lightsquared
Paul Galyean, Director of Advanced Engineering, NavCom Technology

Moderator: Dennis Roberson, Vice Provost Illinois Institute of Technology

3:00 pm - 3:15 pm **Break**

3:15 pm - 4:45 pm **Session 5: Receiver Performance and Industry Standards**
Ali Khayrallah, Director of Research, Ericsson
Dennis Martinez, Chief Technology Officer, Harris
Ed Drocella, Chief, Spectrum Engineering and Analysis Division, NTIA
Bruce DeCleene, Manager, Avionics Systems Branch, FAA

John Henderson, Chair of ATSC TG1/S10, the Specialist Group on Receivers

Moderators: Tom Peters, Chief Engineer, FCC Wireless Telecommunications Bureau, Charles Mathias, Associate Bureau Chief, FCC Wireless Telecommunications Bureau

4:45 – 5 pm **Adjourn**

Day 2 (March 13, 2012)

9:30 am - 10:30 am **Session 6: Policy Alternatives**
Pierre de Vries, Senior Adjunct Fellow, Silicon Flatiron Center at the University of Colorado at Boulder
Dennis Roberson, Vice Provost, University of Illinois Institute
Dale Hatfield, Adjunct Professor, University of Colorado at Boulder
Evan Kwerel, Senior Economic Advisor, FCC Office of Strategic Planning and Policy Analysis

Moderator: John Leibovitz, Deputy Chief, FCC Wireless Telecommunications Bureau

10:30 am - 12:30 pm **Session 7: Panel Discussion**
Pierre de Vries, Senior Adjunct Fellow, Silicon Flatiron Center at the University of Colorado at Boulder
Dennis Roberson, Vice Provost, University of Illinois Institute
Evan Kwerel, Senior Economic Advisor, FCC Office of Strategic Planning and Policy Analysis
Steve Sharkey, Chief, Engineering and Technology Policy, Federal Regulatory, T-Mobile
Larry Krevor, Vice President of Legal and Government Affairs, Sprint-Nextel
Steve Wilkus, Distinguished Member of Technical Staff, Alcatel-Lucent
Dean Brenner, Vice President, Government Affairs, Qualcomm
Henning Schulzrinne, Chief Technology Officer, FCC
Doug Sicker, Chief Technology Officer and Senior Advisor for Spectrum, NTIA

Moderator: Dale Hatfield, Adjunct Professor, University of Colorado at Boulder

12:30 pm **Wrap Up**
Julius Knapp, Chief, FCC Office of Engineering and Technology

Attendance. This workshop is open to the public. Due to high number of anticipated attendees and security check-in procedures, all attendees are advised to arrive 30-60 minutes prior to the session of interest. Attendees are not required to pre-register, but may submit their name and company affiliation ahead of time by sending an email to Cecilia Sulhoff (cecilia.sulhoff@fcc.gov) in order to expedite the check-in process..

Webcast. The FCC will webcast the workshop on the FCC webpage. To view the webcast, go to the FCC web page at www.fcc.gov/live. Viewers will be able to submit questions during the workshop by e-mail to livequestions@fcc.gov.

Accessibility Information. Reasonable accommodations for people with disabilities are available upon request. Include a description of the accommodation you will need and tell us how to contact you if we need more information. Make your request as early as possible. Last minute requests will be

accepted, but may be impossible to fill. Send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

For further information on the workshop, contact Michael Ha, Office of Engineering and Technology at (202) 418-2099 or by email: michael.ha@fcc.gov.

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